

FIG. 1

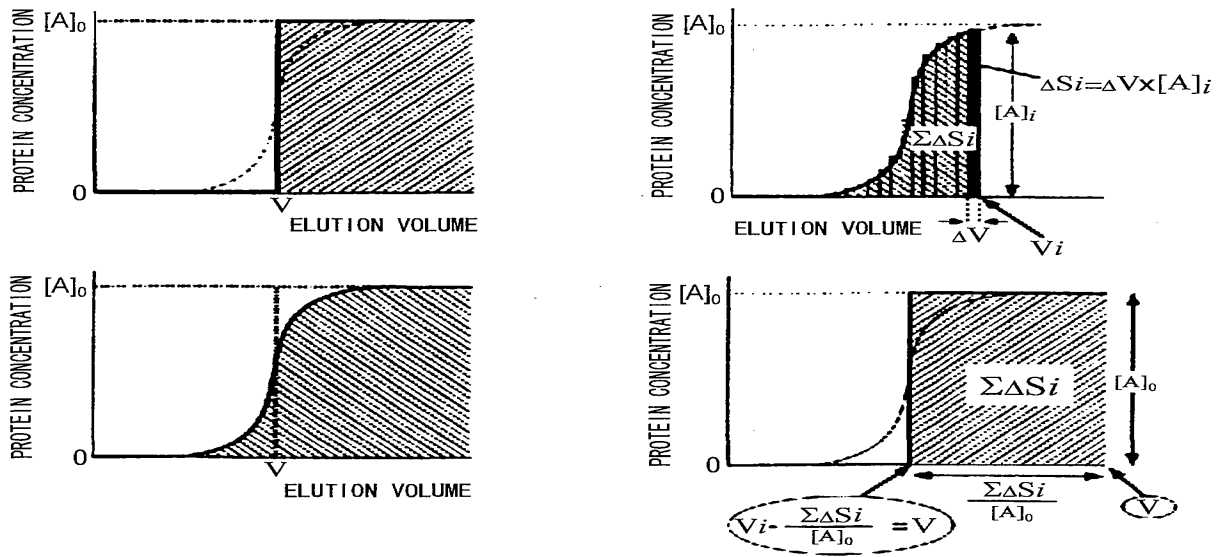


FIG. 2

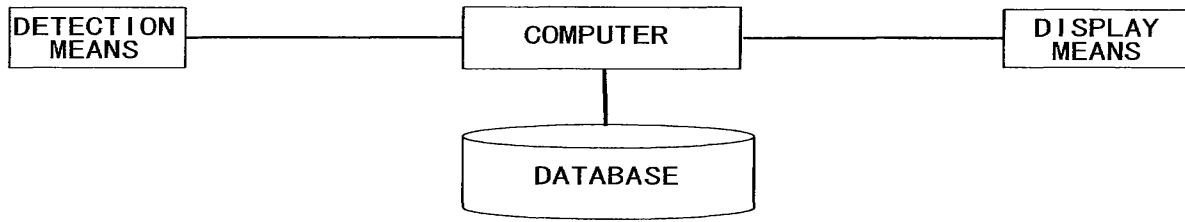


FIG. 3

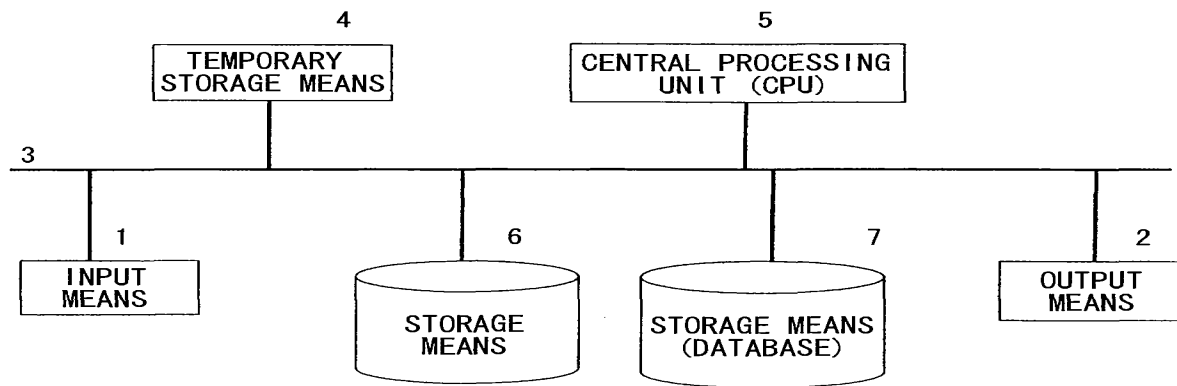


FIG. 4

A	B	C	D	E	F	G	H	I	J	K
	Time	ELUTION VOLUME (V)	Intensity (A)	ZERO CORRECTION % of plateau ZERO STRENGTH		$\Delta S16(V/A)$	$\Sigma \Delta S1$	$\Sigma \Delta S1(A)$	$V-\Sigma \Delta S1(A)$	
22	PLATEAU JOINT									
23	24	0	-20429	-19524	-35.8	-40.6744	-40.6744	0.002083	-0.00208	
24	0.01667	0.002084	-20429	-19524	-35.8	-40.6744	-81.3489	0.004167	-0.00208	
25	0.03333	0.004166	-106	799	1.5	1.665152	-79.6837	-0.0997	0.103862	
26	0.05	0.00625	-235	670	1.2	1.396402	-78.2879	-0.1168	0.123049	
27	0.06667	0.008334	-358	547	1.0	1.140152	-77.1472	-0.14097	0.1493	
28	0.08333	0.010416	-474	431	0.8	0.898455	-76.2487	-0.1768	0.187215	
29	0.1	0.0125	-568	337	0.6	0.702652	-75.546	-0.22399	0.236491	
30	0.11667	0.014584	-682	228	0.4	0.485152	-75.0609	-0.33627	0.350858	
31	0.13333	0.016666	-797	108	0.2	0.225588	-74.8553	-0.49136	0.708025	
32	0.15	0.01875	-898	16	0.0	0.033902	-74.8214	-4.59796	4.616713	
33	0.16667	0.020834	-944	-39	-0.1	-0.06066	-74.9021	1.934091	-1.91326	
34	0.18333	0.022916	-1016	-111	-0.2	-0.23068	-75.1328	0.678539	-0.65562	
35	0.2	0.025	-1074	-169	-0.3	-0.35152	-75.4843	0.447375	-0.42237	
36	0.21667	0.027084	-1129	-224	-0.4	-0.4661	-75.9504	0.339478	-0.31239	
111	1.43333	0.179166	48956	48976	99.3	102.0335	3279.098	0.068953	0.112213	
112	1.45	0.18125	49003	49023	99.4	102.1314	3381.229	0.068972	0.112278	
113	1.46667	0.183334	49030	49050	99.5	102.1877	3483.417	0.071018	0.112316	
114	1.48333	0.185416	49099	49119	99.6	102.3314	3585.749	0.073001	0.112415	
115	1.5	0.1875	49180	49200	99.8	102.5002	3688.248	0.074964	0.112536	
116	1.51667	0.189584	49248	49268	99.9	102.6419	3790.89	0.076944	0.11264	
117	1.53333	0.191666	49283	49313	100.0	102.7556	3893.626	0.078957	0.112709	
118	1.55	0.19375	49281	49301	100.0	102.7106	3996.337	0.08106	0.11269	
119	1.56667	0.195834	49275	49295	100.0	102.6981	4099.035	0.083153	0.112681	
120	1.58333	0.197916	49268	49289	100.0	102.6856	4201.72	0.085246	0.11267	
121	1.6	0.2	49277	49297	100.0	102.7023	4304.423	0.087316	0.112684	

(1)

FIG. 5

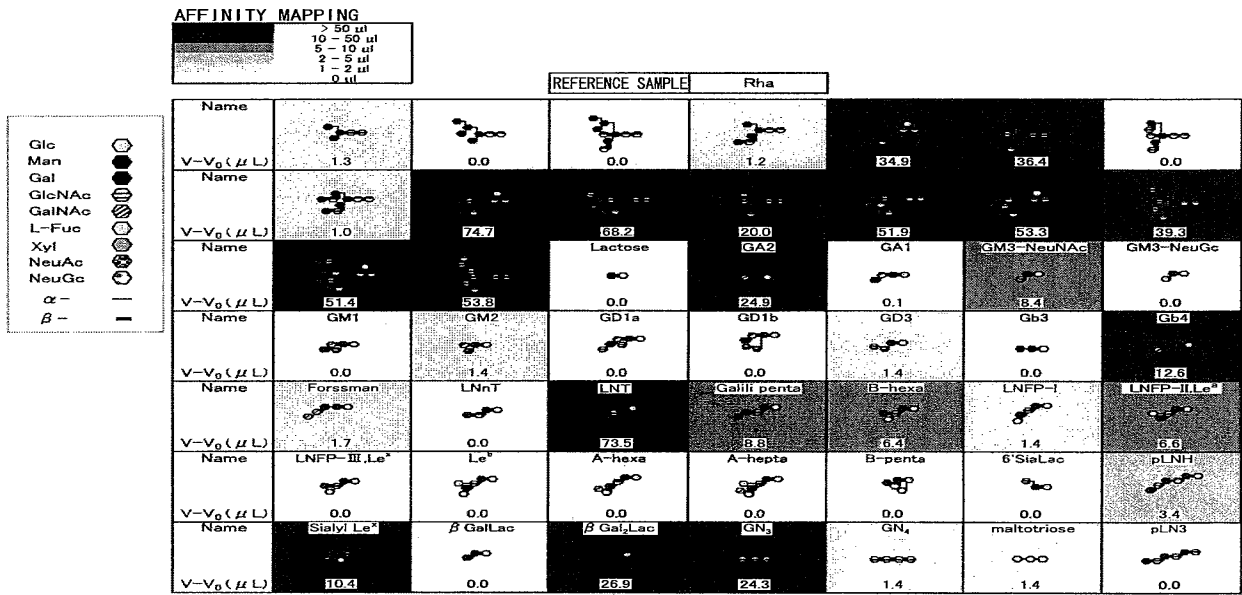
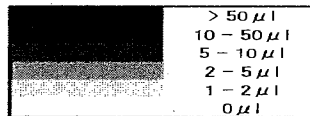


FIG. 6

## AFFINITY MAPPING



REFERENCE SAMPLE	Rha	
SUGAR CHAIN	V-V <sub>0</sub> ( $\mu$ L)	K <sub>a</sub> ( $\mu$ M <sup>-1</sup> )
1	1.3	9.31E-04
2	0.0	0.00E+00
3	0.0	0.00E+00
4	1.2	8.58E-04
5	34.9	2.57E-02
6	36.4	2.68E-02
7	0.0	0.00E+00
8	1.0	7.60E-04
9	74.7	5.49E-02
10	68.2	5.01E-02
11	20.0	1.47E-02
12	51.9	3.82E-02
13	53.3	3.92E-02
14	39.3	2.89E-02
15	51.4	3.78E-02
16	53.8	3.96E-02
17	0.0	0.00E+00
18	24.9	1.83E-02
19	0.1	9.34E-05
20	8.4	6.14E-03
21	0.0	0.00E+00
22	0.0	0.00E+00
23	1.4	1.01E-03
24	0.0	0.00E+00
25	0.0	0.00E+00
26	1.4	1.03E-03
27	0.0	0.00E+00
28	12.6	9.24E-03
29	1.7	1.28E-03
30	0.0	0.00E+00
31	73.5	5.41E-02
32	8.8	6.49E-03
33	6.4	4.73E-03
34	1.4	1.01E-03
35	6.6	4.88E-03
36	0.0	0.00E+00
37	0.0	0.00E+00
38	0.0	0.00E+00
39	0.0	0.00E+00
40	0.0	0.00E+00
41	0.0	0.00E+00
42	3.4	2.49E-03
43	10.4	7.65E-03
44	0.0	0.00E+00
45	26.9	1.97E-02
46	24.3	1.79E-02
47	1.4	1.01E-03
48	1.4	1.01E-03
49	0.0	0.00E+00

FIG. 7-1

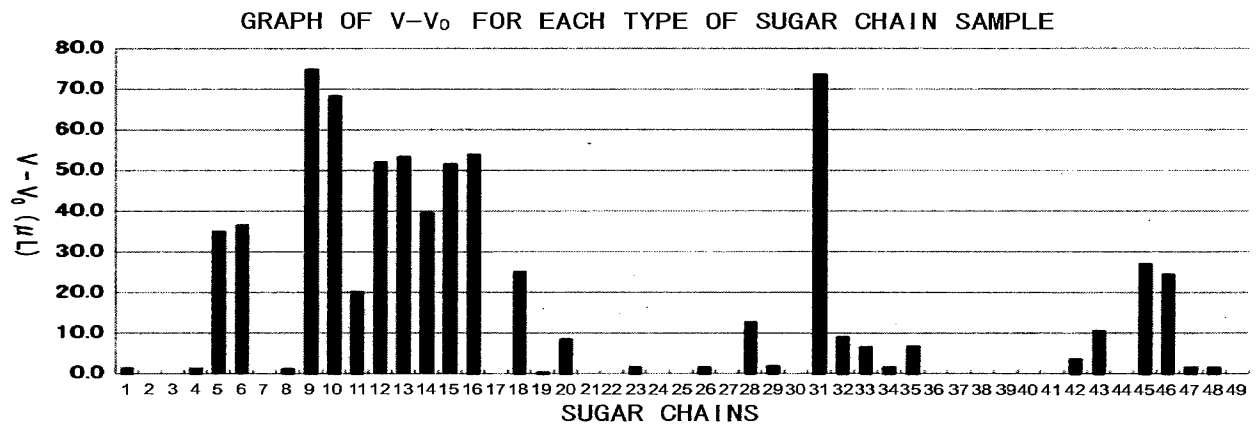


FIG. 7-2



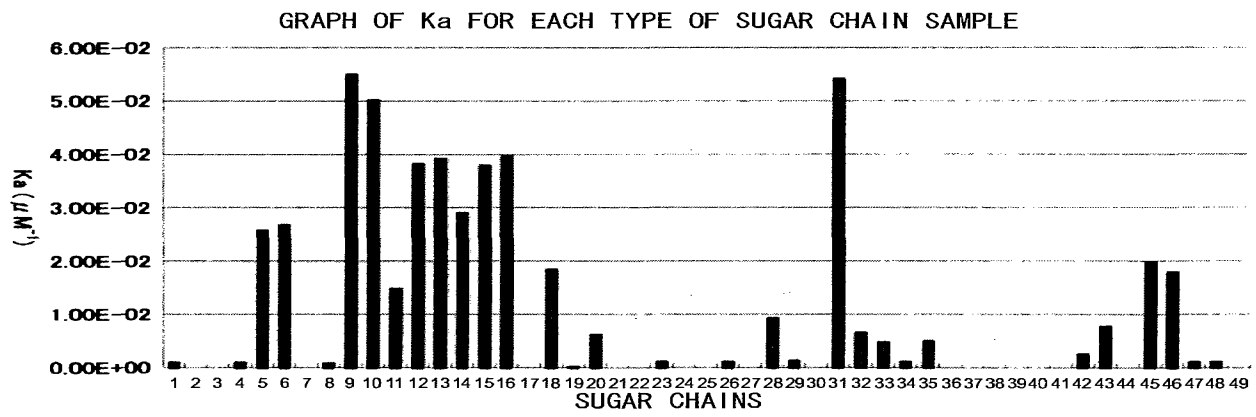
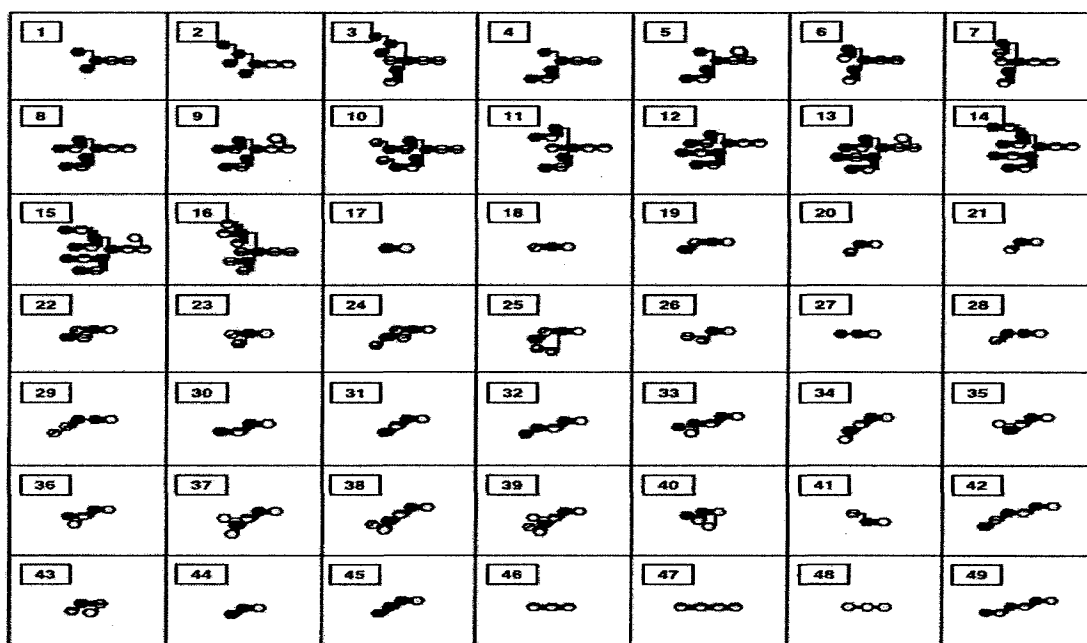


FIG. 7-3



SUGAR CHAINS USED TO MEASURE  
THE LECTIN-SUGAR CHAIN INTERACTION

Glc	
Man	
Gal	
GlcNAc	
GalNAc	
L-Fuc	
NeuAc	
NeuGc	
$\alpha$ -linkage	
$\beta$ -linkage	

FIG. 8

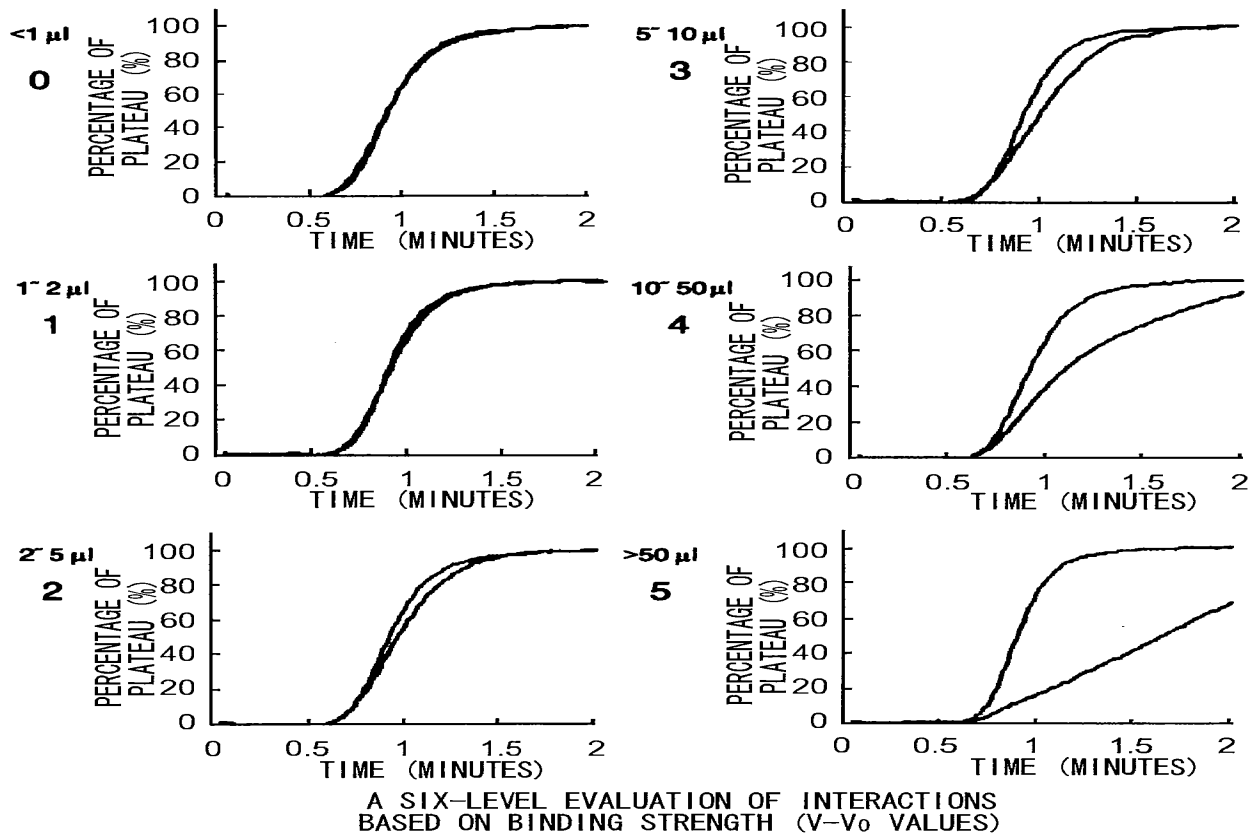
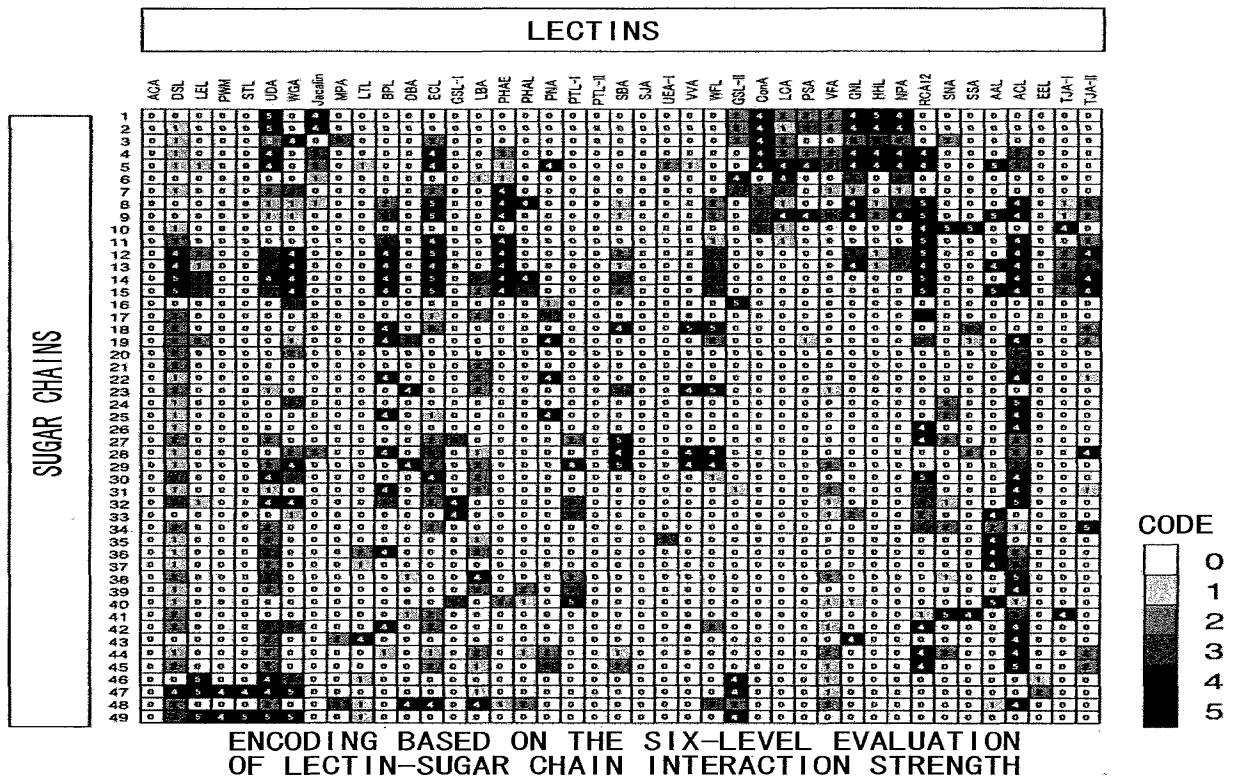


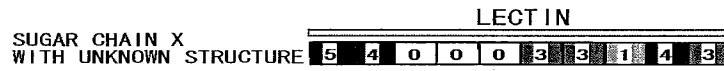
FIG. 9



1. FAC ANALYSIS OF A SUGAR CHAIN  
WITH UNKNOWN STRUCTURE



2. ENCODING OF THE INTERACTION STRENGTH  
(e. g. IN SIX LEVELS: 0 TO 5)

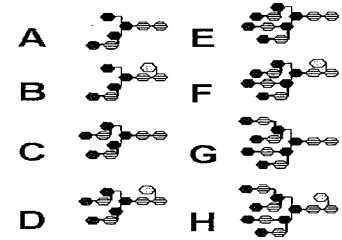


3. COMPARISON WITH THE DATABASE

SUGAR CHAIN

LECTIN

	A	B	C	D	E	F	G	H
A	4	0	2	0	0	4	4	4
B	4	0	4	4	0	4	4	4
C	5	2	1	0	4	1	4	1
D	5	3	4	0	0	1	4	2
E	5	4	0	0	0	3	3	1
F	4	4	0	0	0	3	4	1
G	5	4	0	0	4	4	0	0
H	5	4	0	0	3	3	0	0



4. SELECTION OF A SUGAR CHAIN STRUCTURE

SUGAR CHAIN X  
WITH UNKNOWN STRUCTURE =



FIG. 11

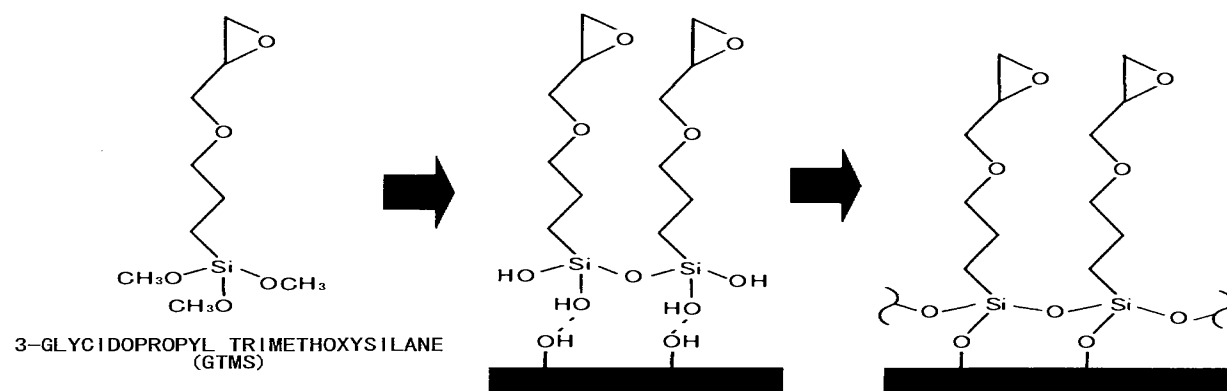


FIG. 12

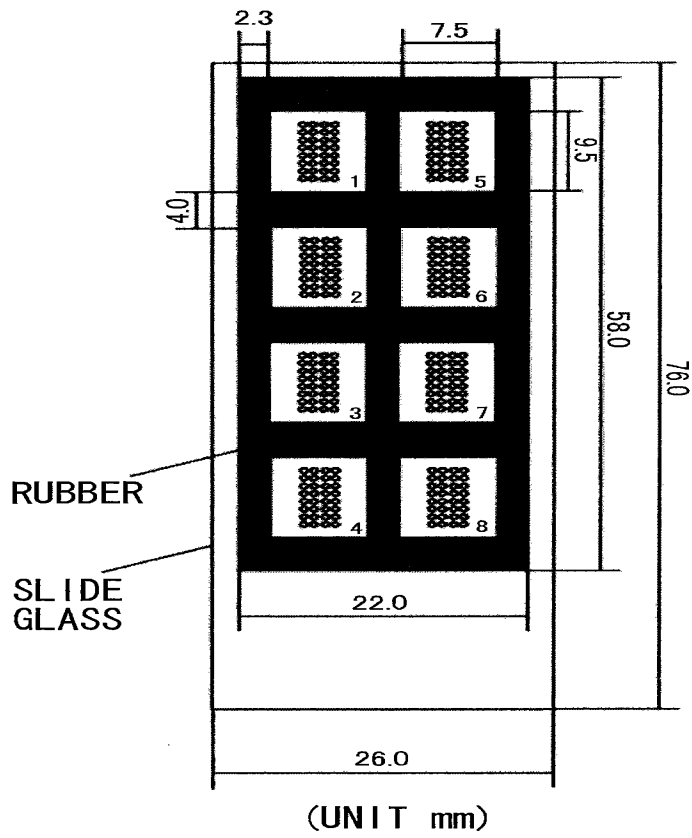


FIG. 13

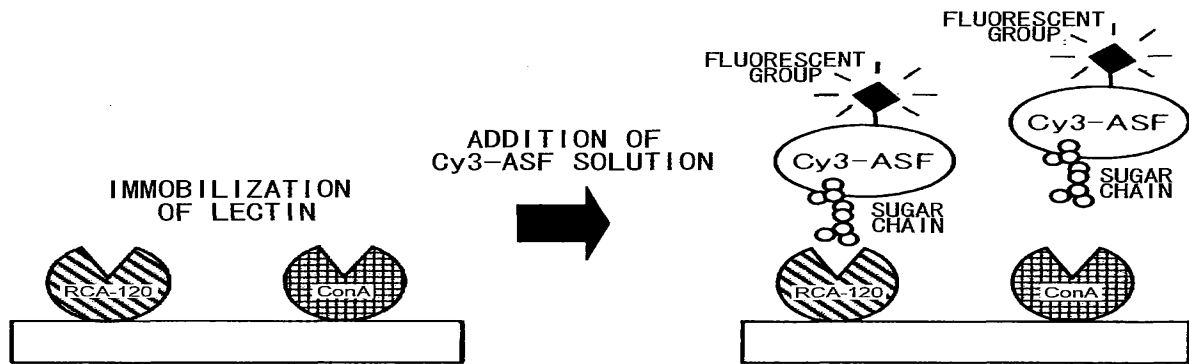


FIG. 14



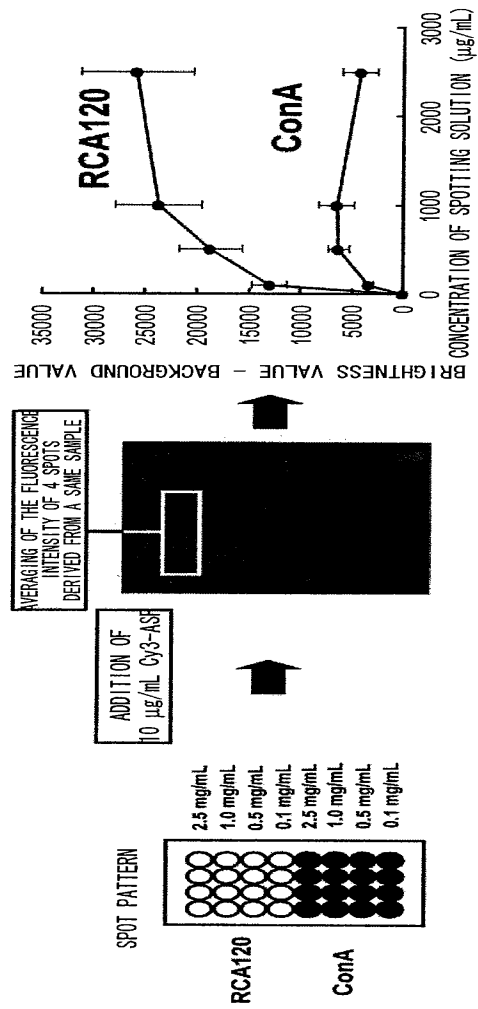


FIG. 15

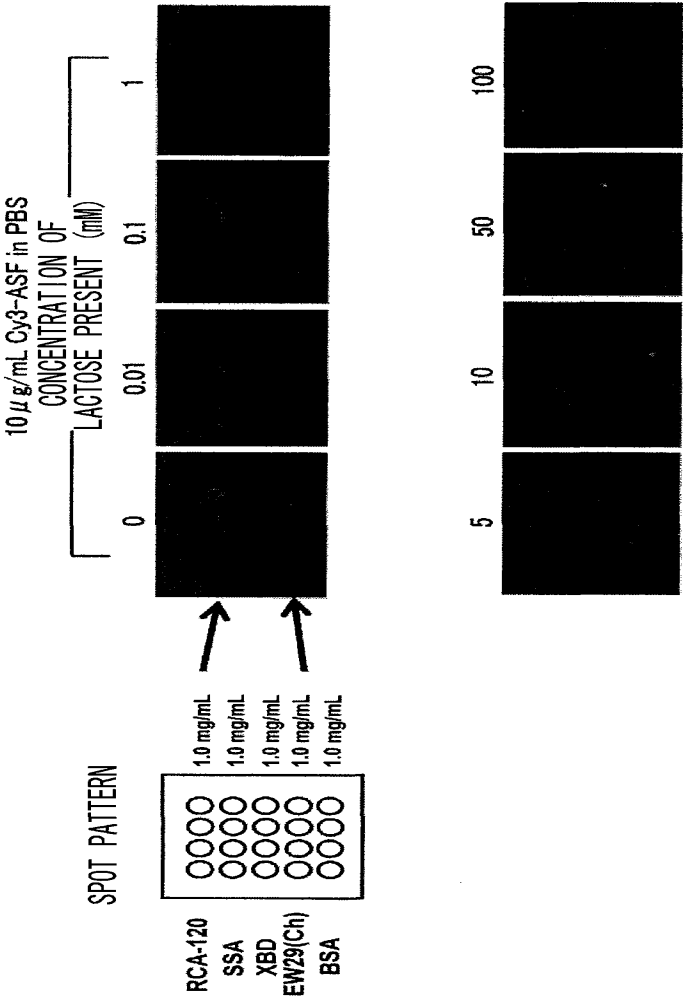


FIG. 16

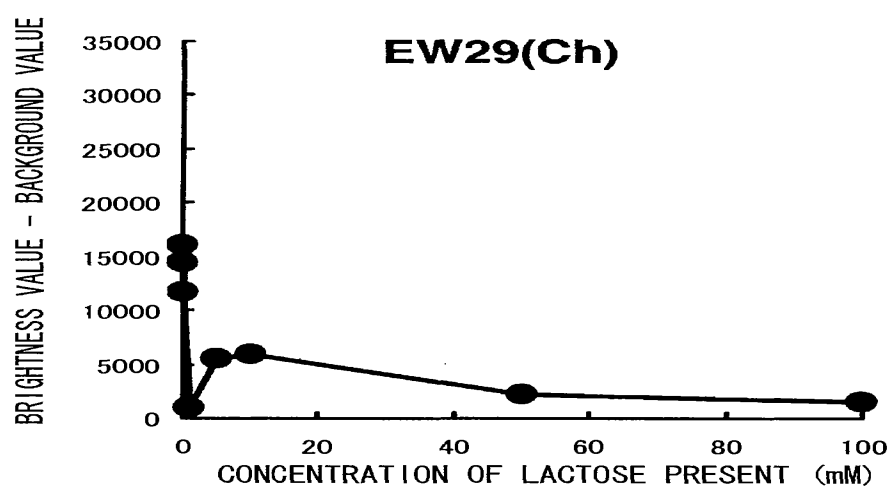
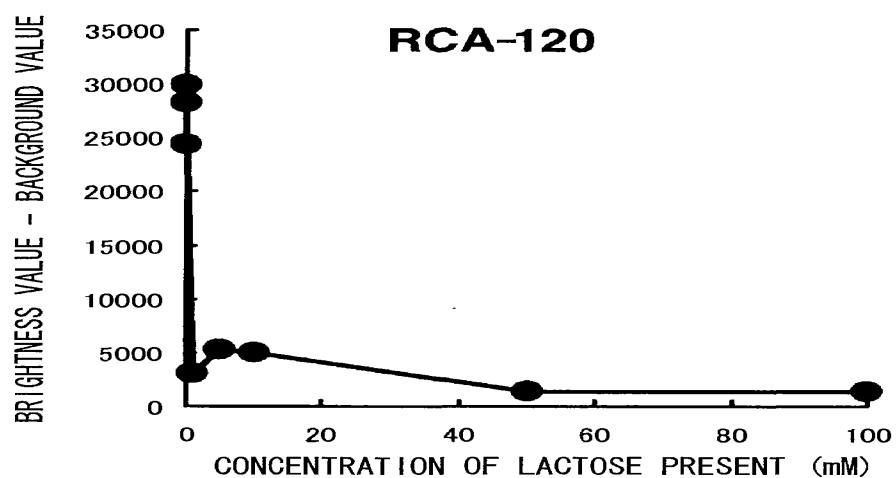


FIG. 17